

**Notice of Allowability**

Application No.

10/507,073

Examiner

Rei-tsang Shiao, Ph.D.

Applicant(s)

KOBAYASHI, SHU

Art Unit

1626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 09/21, 2007.
2. ☒ The allowed claim(s) is/are 1-12.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |  |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application                                |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                              |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance             |
|  | 9. <input type="checkbox"/> Other _____  |

### **DETAILED ACTION**

1. This application claims benefit of the foreign application: JAPAN 2002-065662 with a filing date 03/11/2002. The English-translated version of the instant certified foreign priority document filed on 09/21, 2007 is acknowledged. The foreign priority has been granted herein.
2. Amendment of claims 1-9 in the amendment filed on September 21, 2007 is acknowledged. Claims 1-12 are pending in the application.

### ***Responses to Amendment/Arguments***

3. Since the limitation "comprising" has not been amended, the rejection of claim 5 under 35 U.S.C. 112, second paragraph is maintained.
4. Applicant's arguments regarding the rejection of claims 1-9 under 35 U.S.C. 102(a) or 103(a) over Akiyama et al. filed on September 21, 2007 have been fully considered and they are persuasive. Since Akiyama et al. is not qualified as prior art, the rejection of claims 1-9 under 35 U.S.C. 102(a) or 103(a) over Akiyama et al. has been withdrawn herein.
5. Applicant's arguments regarding the rejection of claims 1-9 under 35 U.S.C. 102(b) or 103(a) over Noels's '002 or Jan et al. '569 filed on September 21, 2007 have been fully considered and they are persuasive. Since the instant variable A representing an organic polymer having an aromatic ring is covalently bound to the metal Ru, which is not found in Noels's or Jan et al., the rejection of claims 1-9 under

Art Unit: 1626

35 U.S.C. 102(b) or 103(a) over Noels's '002 or Jan et al. '569 has been withdrawn herein.

6. Applicant's arguments regarding the rejection of claims 1-9 under 35 U.S.C. 103(a) over Noels's '972 filed on September 21, 2007 have been fully considered and they are persuasive. Since the instant variable A representing an organic polymer having an aromatic ring is covalently bound to the metal Ru, which is not found in Noels's '972, the rejection of claims 1-9 under 35 U.S.C. 103(a) over Noels's '972 has been withdrawn herein.

#### ***EXAMINER'S AMENDMENT***

7. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee. Authorization for this examiner's amendment was given in a telephone interview with Matthew M. Jacob on November 14, 2007. The application has been amended as follows:

In claim 1, line 4, after "a side chain", delete "comprising", and insert  
--, which is--

In claim 1, line 5, after "halogen atoms, and", delete "R<sub>3</sub>", and insert  
--R--

Art Unit: 1626

In claim 5, line 5, after "an aromatic compound", delete "comprising", and insert  
--, which is--

In claim 5, line 6, after "X<sub>1</sub>, X<sub>2</sub> and", delete "R<sub>3</sub>", and insert  
--R--

In claim 5, line 6, after "a side chain", delete "comprising", and insert  
--, which is--

In claim 10, line 1, after "A method of", delete "an organic synthesis reaction,  
wherein"

In claim 10, line 2, after "olefin compound", insert  
--, wherein the reaction--

In claim 11, line 1, after "A method of", delete "an organic synthesis reaction,  
wherein"

In claim 11, line 1, after "reduction of ", delete "carbonyl group", and insert  
--ketone or aldehyde compound, wherein the reaction--

In claim 12, lines 1-2, after "A method of", delete "an organic synthesis reaction,  
wherein a reaction comprising carbon-carbon addition of an acetylene group",  
and insert  
--cyclization/addition reaction of an alkyne, wherein the reaction--

***Reasons for Allowance***

8. The following is an examiner's statement of reasons for allowance:

Claims 1-9 are allowable. Claims 10-12 is previously withdrawn from consideration as a result of a restriction requirement, require all the limitations of an allowable claim. Pursuant to the procedures set forth in MPEP § 821.04(a), **the restriction requirement among inventions groups, as set forth in the Office action mailed on February 15, 2007, is hereby withdrawn** and claims 10-12 are hereby rejoined and fully examined for patentability under 37 CFR 1.104. In view of the withdrawal of the restriction requirement, applicant(s) are advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Once the restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. See *In re Ziegler*, 443 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

Claims 1-12 are neither anticipated nor rendered obvious over the art of record, and therefore are allowable. This invention relates to Arene-ruthenium complexes immobilized on polymers, catalysts consisting of the complexes, and processes for organic synthesis with the same. The closest reference is Furstner et al. US 6,590,048, which discloses highly active cationic ruthenium and osmium complex for olefin metathesis reactions. The difference between the reference and instant claims is that the instant compounds of claim 1 has not been found. A suggestion for

Art Unit: 1626

modification of above reference to obtain the instant compounds of claim 1 and their methods of use has not been found. Claims 1-12 are allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rei-tsang Shiao whose telephone number is (571) 272-0707. The examiner can normally be reached on 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph K. McKane can be reached on (571) 272-0699. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

Application/Control Number: 10/507,073

Page 7

Art Unit: 1626

USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'Rei-tsang Shiao', with a stylized, cursive script.

Rei-tsang Shiao, Ph.D.  
Patent Examiner  
Art Unit 1626

November 15, 2007